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Graduate Programs in
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University of Illinois
at Urbana-Champaign

School of Human Resources
and Family Studies

Human health and well-being are affected by dietary practices that are determined by social, economic, environmental, and health concerns. In the United States today, there is mounting concern that health is too often compromised by inappropriate intakes of nutrients such as calories, lipids, minerals, and others, which are associated with conditions such as heart disease, cancer, obesity, osteoporosis, and diabetes.

At the same time that consumers are increasingly concerned about food quality and safety, Americans are eating away from home more than ever before. Thus, the tremendous growth of the hospitality industry is a major factor in diet and food choice. Faculty and graduate student researchers in the Division of Foods and Nutrition at the University of Illinois at Urbana-Champaign seek to define the relationships among food choice, nutrients, and health in the context of American society and for the benefit of cultures worldwide. The division is one of four in the School of Human Resources and Family Studies within the College of Agriculture.

Programs of Study

The Division of Foods and Nutrition offers research-oriented programs of study leading to the M.S. and Ph.D. degrees. Teaching and research programs focus on human nutrition, its relation to health and well-being, and the prediction and measurement of the quality of foods as they are consumed. Faculty members conduct both basic and applied research. The division normally enrolls about forty graduate students, and alumni have pursued successful careers in industry, government, and higher education.

In consultation with their advisers, students select courses in foods, nutrition, food science, biological and chemical sciences, statistics, and other related areas that reflect their own backgrounds and interests.

- A candidate for the M.S. degree may concentrate study in the areas of foods, nutrition, or food service systems.
- A candidate for the Ph.D. degree may emphasize study in foods, nutrition, or a combined program of foods and nutrition.
- Students and faculty members may also participate in the Center for Nutritional Sciences, which combines expertise from the Division of Foods and Nutrition; the Departments of Animal Sciences, Food Science, Kinesiology, and Physiology; and the

Colleges of Medicine and Veterinary Medicine. Flexible, interdisciplinary programs of study lead to M.S. and Ph.D. degrees with interdisciplinary concentrations in experimental nutrition, nutritional biochemistry, the chemistry of nutritional compounds, and nutrition education.

Research opportunities are available in food evaluation through nutritional, microbiological, chemical, and sensory studies; measurement of food characteristics; food toxicology; maternal and infant nutrition; nutrition and exercise; nutrition and health; and community and international nutrition. The following research programs are currently under way in the Division of Foods and Nutrition.

Research Opportunities and Resources

Graduate students in the Division of Foods and Nutrition enjoy many different opportunities to conduct research projects for the master's or doctoral degree alongside faculty advisers. With extensive, state-of-the-art facilities and resources and broad faculty expertise available, students can pursue both basic and applied research, ranging from experimental studies in foods or nutrition to studies of food service systems, hospitality management, and nutrition education.

The Division of Foods and Nutrition boasts excellent research facilities, including a wide range of instrumentation for chemical and biochemical analyses, a specialized laboratory for sensory evaluation, a cafeteria for food service studies, and modern facilities for laboratory animals. The campus supports centers for electron microscopy and nuclear magnetic resonance, which are also available for foods and nutrition research.

NUTRITION

The research program in nutrition places major emphasis on human nutrition and its relation to health and well-being.

Nutrition and Health

Studies address the interrelationships of nutrients with diseases or with recovery from malnutrition or trauma. Research focuses on nutrition-related aspects of cancer, atherosclerosis, hypertension, and obesity, based on experimental laboratory, community, and international approaches to nutrition.

Nutrition and Metabolism

Fundamental studies of nutrient metabolism provide the basis for understanding the interrelationships of micro- and macronutrients. Research projects address the interactions of diet and exercise in both humans and animals.

Maternal and Infant Nutrition

Research efforts are directed at defining nutrient requirements for infants and reproducing women in the United States and around the world.

FOODS

Research programs in the area of foods focus on measurement and prediction of food quality for the consumer.

Chemical and Physical Measurements of Food

Characteristics

Fundamental studies of the heterogeneity of food systems are conducted to describe the characteristics of foods and to explain the behavior of food components.

Evaluation of Food Quality

Assessments of the nutritional, microbiological, chemical, and sensory quality of food products are used as the basis for the acceptance of foods.

HOSPITALITY MANAGEMENT

Research in hospitality management involves the evaluation of strategies to improve human nutrition, health, and safety in the hospitality business and institutional food service environments.

Quality of Restaurant Meal Selection

Meals and handling techniques are tested by microbiological, chemical, and behavioral methods to determine safety, acceptance, and nutritional value.

Studies of Diseases in the Hospitality Workplace

Nutritional, microbiological, environmental, and managerial factors are tested for their efficacy in controlling infectious and noninfectious diseases.

The University of Illinois at Urbana-Champaign

Since its founding in 1867, the University of Illinois at Urbana-Champaign has earned a reputation of international stature. Its distinguished faculty, outstanding resources, breadth of academic programs and research disciplines, and large and diverse student body constitute an educational community ideally suited for advanced study and research. The campus has long been a major center for research in the biological sciences and in agriculture, as well as in the physical sciences and engineering.

Known primarily for its achievements in research and graduate study, the campus enrolls approximately 9,000 graduate and professional students in more than 150 disciplines. About 26,000 undergraduates are enrolled in ten colleges and schools.

Academic resources are among the finest in the world. The University of Illinois Library at Urbana-Champaign is the third largest academic collection in the nation; only those of Harvard and Yale are larger. More than 11 million items are housed in the main library building and in thirty-eight departmental libraries campuswide. The University Library is the second heaviest lender and the heaviest borrower of all 118 major research libraries in the United States and Canada.

The University's five-decade tradition in computer engineering and computer-aided education has created one of the most comprehensive user-oriented computer systems in the nation. Graduate students have free access to a mainframe computer and several thousand computer workstations campuswide, including many in research laboratories within the Division of Foods and Nutrition.

A major center for the arts, the campus attracts dozens of nationally and internationally renowned artists each year to its widely acclaimed Krannert Center for the Performing Arts. The University supports three major museums, including the Krannert Art Museum, second only to the Art Institute of Chicago among Illinois public art museums. Other facilities include the 17,000-seat Assembly Hall and the Intramural-Physical Education Building, among the largest university recreational centers of its kind.

The campus is located in east-central Illinois in the twin cities of Champaign and Urbana (combined population 100,000). The community is readily accessible by air, rail, bus, and interstate highway.

Financial Aid

Financial aid is awarded to graduate students on a competitive basis, and approximately 75 percent of the graduate students on campus hold teaching or research assistantships or fellowships. Teaching and research assistantships are available through the division and as part of faculty research grants. The division awards the Ruth A. Wardall Fellowship annually, and the College of Agriculture awards Jonathan Baldwin Turner Fellowships with \$10,000 annual stipends to outstanding Ph.D. applicants with cumulative grade-point averages of 4.75 (A = 5.0) or higher in both undergraduate and graduate work. Graduate fellowships of as much as \$10,000 are available for qualified minority applicants. Additional fellowships are also awarded by the University's Graduate College. Most assistantships and fellowships include a full waiver of tuition and some service fees; separate waivers are also available.

Admission Requirements

Typically, one-third of the M.S. and Ph.D. candidates in the Division of Foods and Nutrition have earned B.S. degrees in chemical and life sciences. For admission to the graduate programs, a minimum grade-point average of 4.0 (A = 5.0) is required, with courses in organic and inorganic chemistry, calculus, microbiology, and physiology, as well as undergraduate courses in both foods and nutrition.



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The division's program in foods and nutrition requires a prior course in quantitative analytical chemistry; for the M.S. concentration in food service systems, introductory courses in accountancy, business administration, and economics are required. In all programs, a limited number of deficiencies may be made up during the first year of graduate study. GRE scores are required of all applicants, and an international applicant must submit a score of at least 570 on the Test of English as a Foreign Language.

Applicants seeking admission for the fall semester who wish to be considered for financial assistance should file an application for admission on or before the preceding January 15. Later applications will be considered, depending on the availability of space and financial support.

To receive an Application for Admission or for more information on graduate study in the Division of Foods and Nutrition, please contact:

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